

IN THE CLAIMS:

Please amend the claims as follows:

Claim 1 (Currently Amended): A bind processing method in which sheets of loose leaf paper are bound with a binder, the sheets of loose leaf paper having on which a plurality of punch holes are formed along one side of the sheets of paper~~[[,]] are bound with a binder, the~~ and the binder comprising a spine portion and a plurality of upper and lower division ring portions of ~~which are~~ arranged at regular intervals along both long sides of ~~[[a]]~~ the spine portion, the spine portion being interposed between the upper and lower division ring portions, the method comprising:

driving pairs of upper and lower pushers symmetrically in the vertical direction so as to pinching and closing close the upper and lower ~~[[the]]~~ division ring portions of the binder when a pair of upper and lower pushers are driven in the closing direction by an elevating drive mechanism for elevating the pair of pushers symmetrically in the vertical direction; and

engaging forward end portions of the upper division ring portions ~~[[,]] which compose a pair in such a manner that the spine portion of the binder is interposed between the division ring portions, with each other in punch holes formed on the sheets of loose leaf paper~~ with forward end portions of the lower division ring portions within the punch holes formed on the sheets of loose leaf paper.

Claim 2 (Currently Amended): The bind processing method according to claim 1, wherein each of the pairs upper and lower pushers comprises two sets of the pairs of upper and lower pushers,

the two sets of pairs upper and lower pushers are arranged in ~~the~~ a longitudinal direction, one set of the pair of upper and lower pushers pinch ~~[[a]]~~ back face ~~side~~ sides of the upper and lower division ring ~~portion~~ portions of the binder so as to rotate the upper and lower division ring portions in ~~the~~ a closing direction, and

~~the other~~ another set of the pair of upper and lower pushers pinch ~~[[the]]~~ forward end sides of the division ring portion of the binder so as to engage the forward end portions of the opposing upper and lower division ring portions with each other.

Claim 3 (Currently Amended): The bind processing method according to claim 1, further comprising:

~~wherein a sheet table, which supports~~ supporting the sheets of paper to be bound in a sheet table, and

~~is made to proceed to the binder by a table moving mechanism for~~ advancing and retreating the sheet table ~~to~~ toward the binder when the ~~pair~~ pairs of upper and lower pushers ~~conducts~~ conduct binding, so that ~~the~~ generation of abrasion between the division ring portion and ~~the~~ inner wall ~~face~~ faces of ~~[[a]]~~ the punch ~~hole~~ holes can be suppressed when the division ring ~~portion~~ portions of the binder proceeds into the punch hole on the sheets of paper.

Claim 4 (Currently Amended): A bind processing device for use with a binder comprising a spine portion and division ring portions arranged at regular intervals along both

sides of the spine portion, the spine portion being interposed between the division ring portions,
the device using a binder, along both long sides of the spine portion of which division ring
portions are arranged at regular intervals, comprising:

an upper side pusher and a lower side pusher;

~~an elevation~~ a drive mechanism that elevates drives the upper side pusher and the lower
side pusher symmetrically ~~with respect to the~~ in a vertical direction; and

a drive motor that drives the drive mechanism,

wherein the upper side pusher and the lower side pusher are driven in ~~the~~ a closing
direction so as to close the division ring portions of the binder, ~~and so that pairs of forward end~~
~~portions of the division ring portions, which compose a pair in such a manner that the spine~~
~~portion of the binder is interposed between the division ring portions,~~ are engaged with each
other ~~in~~ within punch holes on the sheets of loose leaf paper.

Claim 5 (Currently Amended): The bind processing device according to claim 4, wherein
the upper and the lower ~~pusher includes~~ pushers comprise:

[[a]] first upper ~~pusher~~ pushers and [[a]] first lower ~~pusher~~ pushers, which are arranged
in ~~the~~ a longitudinal direction, and ~~also includes a~~

second upper ~~pusher~~ pushers and [[a]] second lower ~~pusher~~ pushers,

the first upper ~~pusher~~ pushers and the first lower ~~pusher~~ pushers pinch [[a]] back face
~~side~~ sides of upper and lower division ring portions of the division ring portions of the binder
and rotate the upper and the lower division ring ~~portion~~ portions, and

the second upper pusher and the second lower pusher pinch [[a]] forward end ~~portion-side~~
portions of the upper and lower division ring portions of the division ring ~~portion~~ portions of the

binder ~~and engage~~ so that the forward end portions of the opposing upper and lower division ring portions engage ~~to~~ each other.

Claim 6 (Currently Amended): The bind processing device according to claim 4, further comprising:

a sheet table for supporting sheets of paper to be bound; and

a table moving mechanism for advancing and retreating the sheet table to the binder,

wherein

when binding is conducted by the upper and lower pusher, the sheet table is advanced toward the binder so as to suppress ~~the~~ occurrence of abrasion caused between the division ring ~~portion~~ portions and the inner wall ~~face~~ faces of the punch ~~hole~~ holes when the division ring ~~portion~~ portions of the binder proceeds into the punch holes ~~of the sheets of paper~~.

Claim 7 (Currently Amended): The bind processing device according to claim 4, further comprising:

an elevating pin provided on the sheet table, wherein

the elevating pin is inserted into one of the punch holes of each of the sheets of paper on the sheet table so as to correct a positional deviation of the punch hole of each ~~sheet~~ of the sheets of paper.

Claim 8 (Currently Amended): The bind processing device according to claim 4, the ~~pusher elevation~~ drive mechanism ~~including~~ comprising:

a feed screw arranged in the longitudinal direction having an upper half portion in which a screw is formed and a lower half portion in which a screw inverse to the screw of the upper half portion is formed; and

an upper slider and a lower slider, the upper slider comprising a female screw and lower slider comprising in which a female screw, the female screws of is respectively formed so that the upper slider and the lower slider can be engaged with the upper half portion and the lower half portion of the feed screw.

Claim 9 (Currently Amended): The bind processing device according to claim 4, the ~~elevating~~ drive mechanism ~~of the pusher including~~ comprising:

a pair of levers connected with each other by a pin; and

a lever opening and closing drive mechanism.

Claim 10 (Currently Amended): A bind processing device for use with a plurality using a binder binders, each binder comprising in which a spine portion, division ring portions ~~are~~ arranged at regular intervals along both long sides of the spine portion, and a connection means ~~composed~~ comprising ~~[[of]]~~ a pin provided on one side of the spine portion and a groove is provided on ~~both sides~~ another side of the spine portion,

~~and the binders capable of being can be~~ connected in parallel with each other, and the pin and the groove capable of being released from each other and when one of the binders are is slid from each other in the lateral direction with respect to another of the binders, the pin and the groove can be released from each other, the bind processing device comprising:

a slider that slides ~~[[the]]~~ a front binder in the lateral direction; and

a slider drive mechanism that drives the slider,

wherein the front ~~row~~ binder is laterally slid by the slider and separated from ~~[[the]]~~ a rear ~~row~~ binder.

Claim 11 (Currently Amended): A bind processing device for binding sheets of loose leaf paper, ~~along one side of which a plurality of punch holes are formed~~, with a binder, a plurality of punch holes being formed along one side of the sheets of loose leaf paper, and division ring portions being arranged at regular intervals along both long sides of ~~[[the]]~~ a spine portion of the binder ~~which division ring portions are arranged at regular intervals~~, the bind processing device comprising:

a sheet table that supports the sheets of loose leaf paper; and

an elevating pin provided on the sheet table that enters and proceeding into one of the punch holes of the sheets of paper so as to correct a positional deviation of the punch hole ~~of each sheet of paper~~.

Claim 12 (Currently Amended): A binder cartridge for accommodating in which a plurality of laminated binders, each of the binders comprising a spine portion and division ring portions arranged at regular intervals along both long sides of the spine portion ~~portions of which division ring portions are arranged at regular intervals, are laminated and accommodated~~, the binder cartridge comprising:

a front wall;

a longitudinal through-groove formed in a vertical intermediate portion on the front wall, the through-groove extending in the a horizontal direction; and

a crank-shaped guide groove, ~~the plane shape of which is formed in a right angle, the~~
crank-shaped guide groove being arranged in parallel with the longitudinal through-groove and
formed on the front wall, wherein

a front ~~row~~ binder of the plurality of binders can be ~~picked up~~ removed from the groove
in a forward direction when the front row binder is relatively slid in a lateral direction in the
crank-shaped guide groove of the binder cartridge and the gate portion, in which the crank
portion of the crank-shaped guide groove is formed, are relatively slid in the lateral direction.

Claim 13 (Currently Amended): A combination of a binder lamination body
~~accommodated in and~~ a binder cartridge, the binder lamination body accommodated within the
binder cartridge, the binder cartridge comprising:

a front wall;

~~including~~ a longitudinal through-groove formed in a vertical intermediate portion on the
front wall, the longitudinal through-groove extending in the a horizontal direction and also
~~including~~

a crank-shaped guide, ~~the plane shape of which is formed into a right angle, being~~
arranged in parallel with the longitudinal through-groove and formed on the front wall.

Claim 14 (Currently Amended): A finisher device for having a bind processing device
using a binder, the binder comprising a spine portion and division ring portions arranged at
regular intervals along both long sides of the spine portion, the spine portion being interposed
between the division ring portions of which division ring portions are arranged at regular
intervals, the bind processing finisher device comprising:

an upper side pusher and a lower side pusher;

~~an elevation~~ a drive mechanism for ~~elevating~~ driving the upper side pusher and the lower side pusher symmetrically with respect to the vertical direction; and

a drive motor the drives the drive mechanism,

wherein the upper side pusher and the lower side pusher are driven in the closing direction so as to close the division ring portions of the binder, and a pair of forward end portions of the division ring portions are engaged with each other within punch holes on the sheets of loose leaf paper ~~which compose a pair in such a manner that the spine portion of the binder is interposed between the division ring portions, are engaged with each other in punch holes on the sheets of loose leaf paper.~~

Claim 15 (Currently Amended): A bookbinding device ~~having a bind processing device using a binder, along both long sides of the spine portion of which division ring portions are arranged at regular intervals, the bind processing device comprising: an upper side pusher and a lower side pusher; an elevation drive mechanism for elevating the upper side pusher and the lower side pusher symmetrically with respect to the vertical direction; and a drive motor, wherein the upper side pusher and the lower side pusher are driven in the closing direction so as to close the division ring portions of the binder, and forward end portions of the division ring portions, which compose a pair in such a manner that the spine portion of the binder is interposed between the division ring portions, are engaged with each other in punch holes on the sheets of loose leaf paper~~ for using a binder, the binder comprising a spine portion and division ring portions arranged at regular intervals along both sides of the spine portion, the spine portion being interposed between the division ring portions, bookbinding device comprising:

an upper side pusher and a lower side pusher;
a drive mechanism for driving the upper side pusher and the lower side pusher
symmetrically with respect to the vertical direction; and
a drive motor that drives the drive mechanism,
wherein the upper side pusher and the lower side pusher are driven in the closing
direction so as to close the division ring portions of the binder, and a pair of forward end portions
of the division ring portions are engaged with each other within punch holes on the sheets of
loose leaf paper.

Claim 16 (Currently Amended): A finisher device ~~having a bind processing device for~~
using ~~a binder~~ binders, each of the binders comprising a spine portion, in which division ring
portions ~~are~~ arranged at regular intervals along both long sides of the spine portion, and a
connection means ~~composed of~~ comprising a pin and a groove [[is]] provided on ~~both~~ opposing
sides of the spine portion, [[and]] the binders can be connected in parallel with each other [[and]]
by the pin and groove, and, when the binders are slid from each other in the lateral direction, the
pin and the groove can be released from each other, the finisher device ~~bind processing device~~
comprising:

a slider for sliding [[the]] a front binder of the connected binders in [[the]] a lateral
direction; and

a slider drive mechanism, wherein the front ~~row~~ binder is laterally slid by the slider and is
separated from [[the]] a rear ~~row~~ binder of the connected binders.

Claim 17 (Currently Amended): A bookbinding device for using binders, each of the binders comprising a spine portion, division ring portions arranged at regular intervals along both long sides of the spine portion, and a connection means comprising a pin and groove provided on opposing sides of the spine portion, the binders are connected in parallel with each other by the pin and groove, and, when the binders are slid from each other in the lateral direction, the pin and the groove are released from each other, the bookbinding device comprising:

a slider for sliding a front binder of the connected binders in a lateral direction; and
a slider drive mechanism, wherein the front binder is laterally slid by the slider and is separated from a rear binder of the binders ~~having a bind processing device using a binder in which division ring portions are arranged at regular intervals along both long sides of the spine portion, a connection means composed of a pin and a groove is provided on both sides of the spine portion, and the binders can be connected in parallel with each other and when the binders are slid from each other in the lateral direction, the pin and the groove can be released from each other, the bind processing device comprising: a slider for sliding the binder in the lateral direction; and a slider drive mechanism, wherein the front row binder is laterally slid by the slider and separated from the rear row binder.~~

Claim 18 (Currently Amended): A finisher device ~~having a bind processing device for binding sheets of loose leaf paper~~ with a binder, each sheet of loose leaf paper comprising, along one side, of which a plurality of punch holes are formed, with a binder, the binder comprising a spine portion and division ring portions arranged at regular intervals along both long sides of the spine portion of which division ring portions are arranged at regular intervals, the bind processing ~~finisher device further~~ comprising:

a sheet table for supporting the sheets of loose leaf paper; and

an elevating pin provided on the sheet table, the elevating pin and proceeding enters into one of the punch holes of each of the sheets of paper so as to correct a positional deviation of the punch hole of each sheet of paper.

Claim 19 (Currently Amended): A bookbinding device for binding sheets of loose leaf paper with a binder, each sheet of loose leaf paper comprising, along one side, a plurality of punch holes, the binder comprising a spine portion and division ring portions arranged at regular intervals along both long sides of the spine portion, the bookbinding device comprising:

a sheet table for supporting the sheets of loose leaf paper; and

an elevating pin provided on the sheet table, the elevating pin enters into one of the punch holes of each of the sheets of paper so as to correct a positional deviation of the punch hole of each sheet of paper ~~having a bind processing device for binding sheets of loose leaf paper, along one side of which a plurality of punch holes are formed, with a binder, along both long sides of the spine portion of which division ring portions are arranged at regular intervals, the bind processing device further comprising: a sheet table for supporting sheets of loose leaf paper; and an elevating pin provided on the sheet table and proceeding into the punch holes of the sheets of paper so as to correct a positional deviation of the punch hole of each sheet of paper.~~